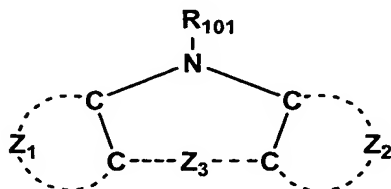


What is claimed is:

1. An organic electroluminescent element comprising a pair of electrodes having therebetween at least one constituting layer containing a phosphorescent light emitting layer, wherein one of the constituting layer contains a compound represented by Formula (1):

Formula (1)



wherein Z₁ represents an aromatic heterocyclic ring which may have a substituent; Z₂ represents an aromatic heterocyclic ring which may have a substituent or an aromatic hydrocarbon ring which may have a substituent; Z₃ represents a divalent linking group or a single bond; and R₁₀₁ represents a hydrogen atom or a substituent.

2. The organic electroluminescent element of claim 1, wherein Z₁ of the compound represented by Formula (1) is a 6-membered ring.

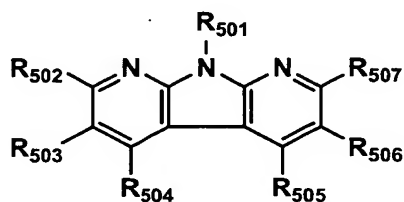
3. The organic electroluminescent element of claim 1 or claim 2, wherein Z_2 of the compound represented by Formula (1) is a 6-membered ring.

4. The organic electroluminescent element of any one of claims 1 to 3, wherein Z_3 of the compound represented by Formula (1) is a single bond.

5. The organic electroluminescent element of any one of claims 1 to 4, wherein the compound represented by Formula (1) has a molecular weight of 450 or more.

6. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-1).

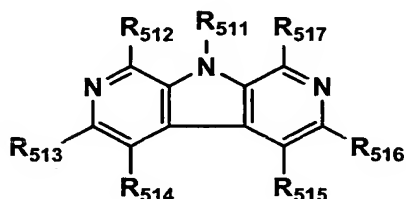
Formula (1-1)



wherein R_{501} - R_{507} each independently represents a hydrogen atom or a substituent.

7. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-2).

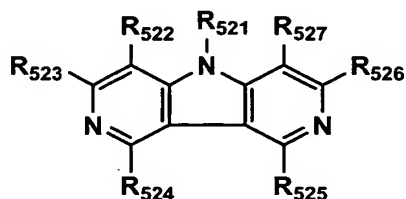
Formula (1-2)



wherein R₅₁₁ - R₅₁₇ each independently represents a hydrogen atom or a substituent.

8. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-3).

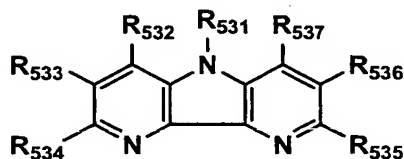
Formula (1-3)



wherein R₅₂₁ - R₅₂₇ each independently represents a hydrogen atom or a substituent.

9. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-4).

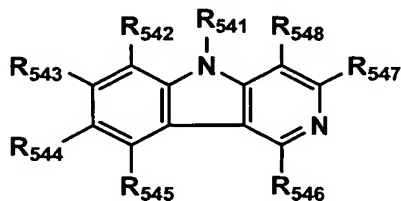
Formula (1-4)



wherein R₅₃₁ - R₅₃₇ each independently represents a hydrogen atom or a substituent.

10. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-5).

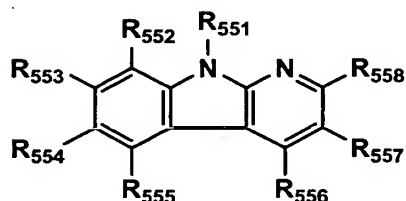
Formula (1-5)



wherein R₅₄₁ - R₅₄₈ each independently represents a hydrogen atom or a substituent.

11. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-6).

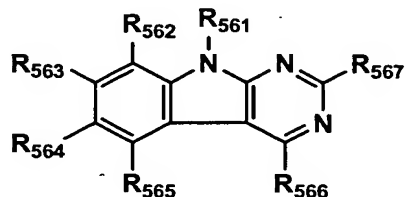
Formula (1-6)



wherein R₅₅₁ - R₅₅₈ each independently represents a hydrogen atom or a substituent.

12. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-7).

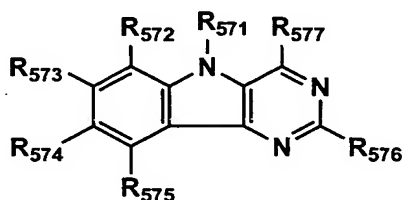
Formula (1-7)



wherein R₅₆₁ - R₅₆₇ each independently represents a hydrogen atom or a substituent.

13. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-8).

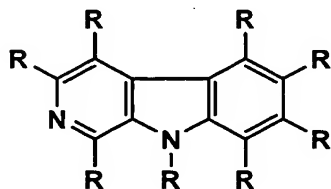
Formula (1-8)



wherein R₅₇₁ - R₅₇₇ each independently represents a hydrogen atom or a substituent.

14. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-9).

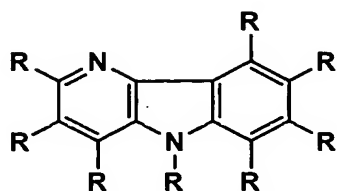
Formula (1-9)



wherein each R represents a hydrogen atom or a substituent and a plurality of R may be the same or may be different from each other.

15. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (1-10).

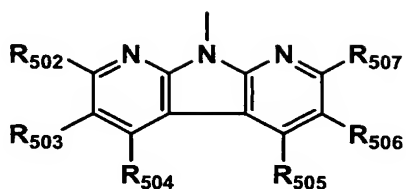
Formula (1-10)



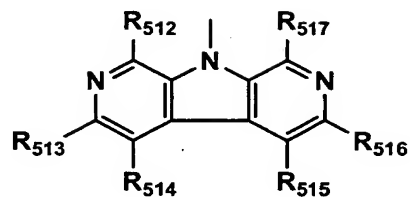
wherein each R represents a hydrogen atom or a substituent and a plurality of R may be the same or may be different from each other.

16. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) has at least one of groups represented by Formulae (2-1) to (2-8).

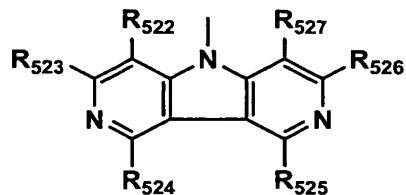
Formula (2-1)



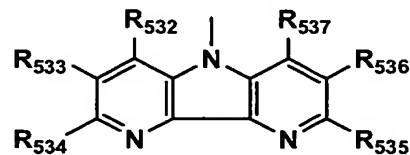
Formula (2-2)



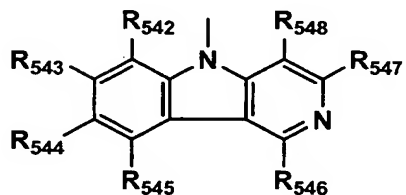
Formula (2-3)



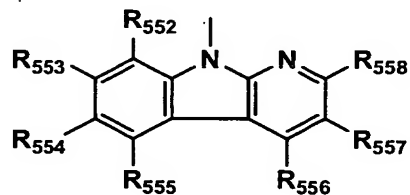
Formula (2-4)



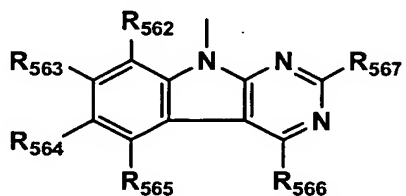
Formula (2-5)



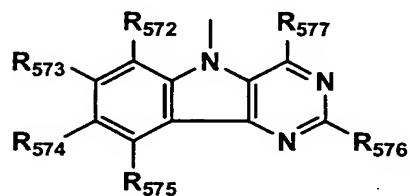
Formula (2-6)



Formula (2-7)



Formula (2-8)



wherein

(a) in Formula (2-1), R₅₀₂ - R₅₀₇ each independently represents a hydrogen atom or a substituent;

(b) in Formula (2-2), $R_{512} - R_{517}$ each independently represents a hydrogen atom or a substituent;

(c) in Formula (2-3), $R_{522} - R_{527}$ each independently represents a hydrogen atom or a substituent;

(d) in Formula (2-4), $R_{532} - R_{537}$ each independently represents a hydrogen atom or a substituent;

(e) in Formula (2-5), $R_{542} - R_{548}$ each independently represents a hydrogen atom or a substituent;

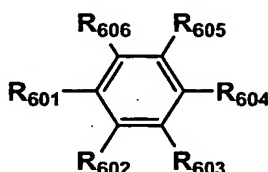
(f) in Formula (2-6), $R_{552} - R_{558}$ each independently represents a hydrogen atom or a substituent;

(g) in Formula (2-7), $R_{562} - R_{567}$ each independently represents a hydrogen atom or a substituent;
and

(h) in Formula (2-8), $R_{572} - R_{577}$ each independently represents a hydrogen atom or a substituent.

17. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (3).

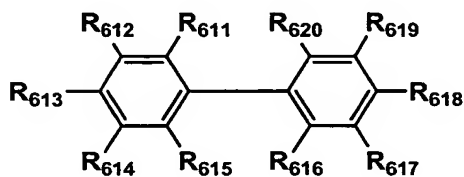
Formula (3)



wherein R_{601} - R_{606} each independently represents a hydrogen atom or a substituent and at least one of R_{601} - R_{606} is represented by one of Formulae (2-1) to (2-4).

18. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (4).

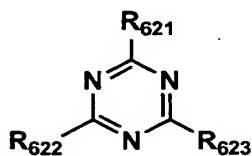
Formula (4)



wherein R_{611} - R_{620} each independently represents a hydrogen atom or a substituent and at least one of R_{611} - R_{620} is represented by one of Formulae (2-1) to (2-4).

19. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (5).

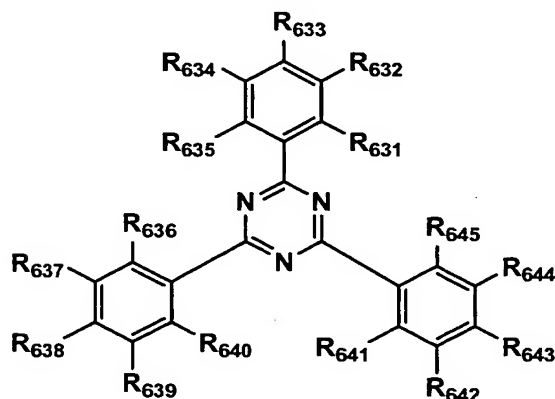
Formula (5)



wherein $R_{621} - R_{623}$ each independently represents a hydrogen atom or a substituent and at least one of $R_{621} - R_{623}$ is represented by one of Formulae (2-1) to (2-4).

20. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (6).

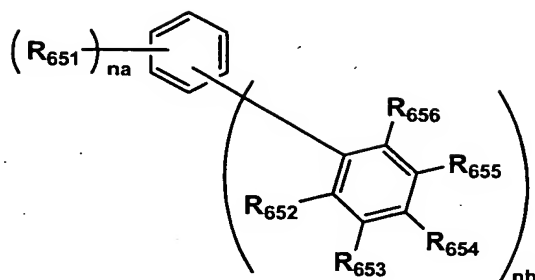
Formula (6)



wherein $R_{631} - R_{645}$ each independently represents a hydrogen atom or a substituent and at least one of $R_{631} - R_{645}$ is represented by one of Formulae (2-1) to (2-4).

21. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (7).

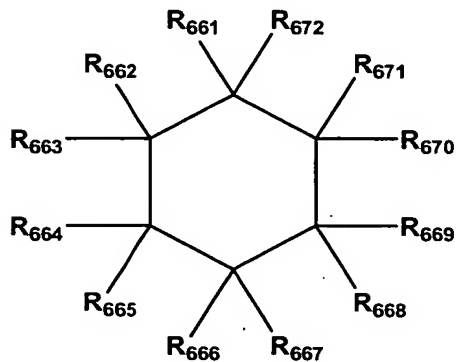
Formula (7)



wherein R_{651} - R_{656} each independently represents a hydrogen atom or a substituent and at least one of R_{651} - R_{656} is represented by one of Formulae (2-1) to (2-4); na represents an integer of 0 to 5; and nb represents an integer of 1 to 6, provided that a sum of na and nb is 6.

22. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (8).

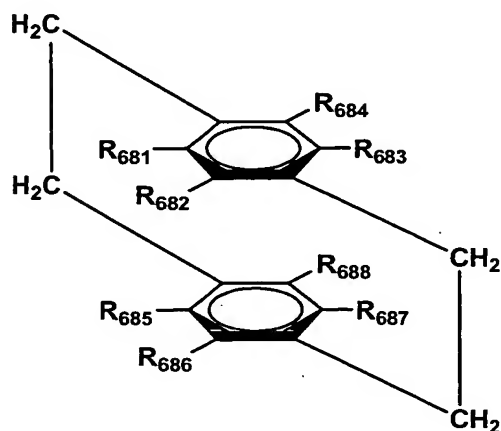
Formula (8)



wherein $R_{661} - R_{672}$ each independently represents a hydrogen atom or a substituent and at least one of $R_{661} - R_{672}$ is represented by one of Formulae (2-1) to (2-4).

23. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (9).

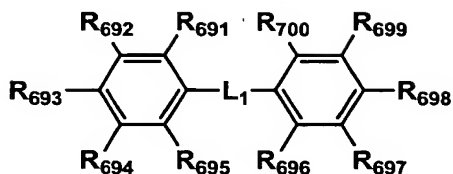
Formula (9)



wherein $R_{681} - R_{688}$ each independently represents a hydrogen atom or a substituent and at least one of $R_{681} - R_{688}$ is represented by one of Formulae (2-1) to (2-4).

24. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (10).

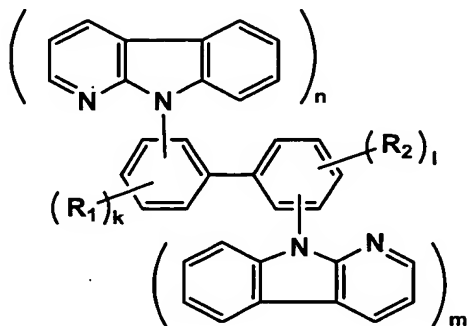
Formula (10)



wherein $R_{691} - R_{700}$ each independently represents a hydrogen atom or a substituent and at least one of $R_{691} - R_{700}$ is represented by one of Formulae (2-1) to (2-4); and L_1 represents a divalent linking group.

25. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (11).

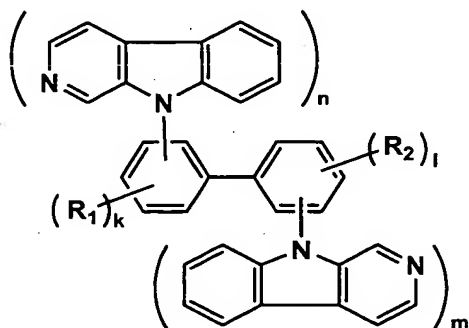
Formula (11)



wherein R_1 and R_2 each independently represents a hydrogen atom or a substituent; n and m each represents an integer of 1 to 2; and k and l each represents an integer of 3 to 4, provided that $n + k = 5$ and $l + m = 5$.

26. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (12).

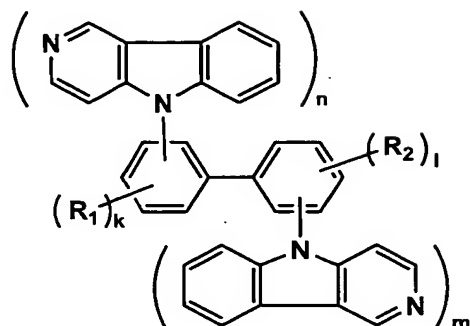
Formula (12)



wherein R_1 and R_2 each independently represents a hydrogen atom or a substituent; n and m each represents an integer of 1 to 2; and k and l each represents an integer of 3 to 4, provided that $n + k = 5$ and $l + m = 5$.

27. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (13).

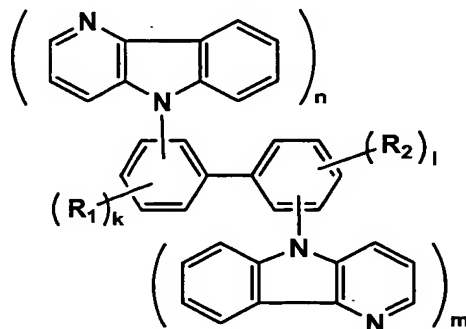
Formula (13)



wherein R_1 and R_2 each independently represents a hydrogen atom or a substituent; n and m each represents an integer of 1 to 2; and k and l each represents an integer of 3 to 4, provided that $n + k = 5$ and $l + m = 5$.

28. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (14).

Formula (14)

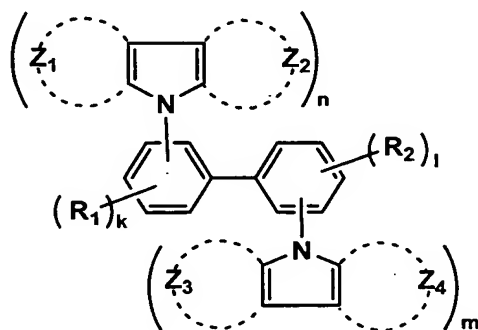


wherein R_1 and R_2 each independently represents a hydrogen atom or a substituent; n and m each represents an

integer of 1 to 2; and k and l each represents an integer of 3 to 4, provided that $n + k = 5$ and $l + m = 5$.

29. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (15).

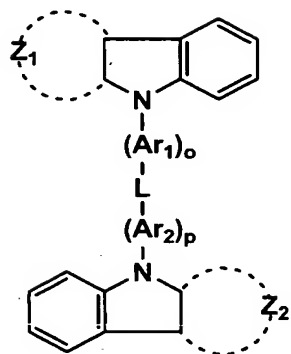
Formula (15)



wherein R_1 and R_2 each independently represents a hydrogen atom or a substituent; n and m each represents an integer of 1 to 2; k and l each represents an integer of 3 to 4, provided that $n + k = 5$ and $l + m = 5$; and Z_1 , Z_2 , Z_3 and Z_4 each represent a 6-membered aromatic heterocyclic ring containing a nitrogen atom.

30. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (16).

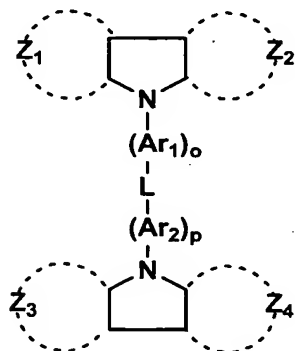
Formula (16)



wherein o and p each represents an integer of 1 to 3; Ar₁ and Ar₂ each represents an arylene group or a divalent aromatic heterocyclic group; Z₁ and Z₂ each represents a 6-membered aromatic heterocyclic ring containing a nitrogen atom; and L represents a divalent linking group.

31. The organic electroluminescent element of any one of claims 1 to 5, wherein the compound represented by Formula (1) is further represented by Formula (17).

Formula (17)



wherein o and p each represents an integer of 1 to 3; Ar₁ and Ar₂ each represents an arylene group or a divalent aromatic heterocyclic group; Z₁, Z₂, Z₃ and Z₄ each represents a 6-membered aromatic heterocyclic ring containing a nitrogen atom; and L represents a divalent linking group.

32. The organic electroluminescent element of any one of claims 1 to 31, wherein the light emitting layer contains the compound represented by Formula (1).

33. The organic electroluminescent element of any one of claims 1 to 32, wherein at least one of the constituting layers is a hole blocking layer and the hole blocking layer contains the compound represented by Formula (1).

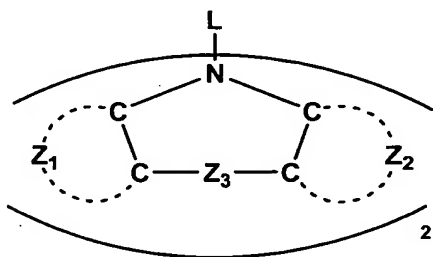
34. The organic electroluminescent element of any one of claims 1 to 33 which emits blue light.

35. The organic electroluminescent element of any one of claims 1 to 33 which emits white light.

36. A display device having the organic electroluminescent element of any one of claims 1 to 35.

37. An organic electroluminescent element comprising a pair of electrodes having therebetween at least one constituting layer containing a phosphorescent light emitting layer, wherein one of the constituting layer contains a compound represented by Formula (1-11):

Formula (1-11)



wherein Z_1 represents an aromatic heterocyclic ring which may have a substituent; Z_2 represents an aromatic heterocyclic ring which may have a substituent or an aromatic hydrocarbon ring which may have a substituent; Z_3 represents a divalent linking group or a single bond; L represents a divalent linking group; and the two groups linked by L may be the same or different from each other.

38. The organic electroluminescent element of claim 37, wherein Z_1 of the compound represented by Formula (1-11) is a 6-membered ring.

39. The organic electroluminescent element of claim 37 or claim 38, wherein Z_2 of the compound represented by Formula (1-11) is a 6-membered ring.

40. The organic electroluminescent element of any one of claims 37 to 39, wherein Z_3 of the compound represented by Formula (1-11) is a single bond.

41. The organic electroluminescent element of any one of claims 37 to 40, wherein the compound represented by Formula (1-11) has a molecular weight of 450 or more.

42. The organic electroluminescent element of any one of claims 37 to 41, wherein the light emitting layer contains the compound represented by Formula (1-11).

43. The organic electroluminescent element of any one of claims 37 to 42, wherein at least one of the constituting layers is a hole blocking layer and the hole blocking layer contains the compound represented by Formula (1-11).

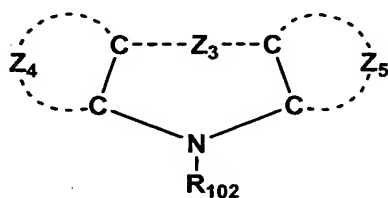
44. The organic electroluminescent element of any one of claims 37 to 43 which emits blue light.

45. The organic electroluminescent element of any one of claims 37 to 43 which emits white light.

46. A display device having the organic electroluminescent element of any one of claims 37 to 45.

47. An organic electroluminescent element comprising a pair of electrodes having therebetween at least one constituting layer containing a phosphorescent light emitting layer, wherein one of the constituting layer contains a compound represented by Formula (1-12):

Formula (1-12)



wherein R₁₀₂ represents an alkyl group which may have a substituent, a cycloalkyl group which may have a substituent, an aryl group which may have a substituent or a heterocyclic group which may have a substituent; Z₄ and Z₅ each

independently represents an atom group which is necessary to form a 5 - 7 membered heterocyclic ring containing nitrogen; and Z_3 represents a divalent linking group or a single bond.

48. The organic electroluminescent element of claim 47, wherein Z_3 of the compound represented by Formula (1-12) is a single bond.

49. The organic electroluminescent element of claim 47 or claim 48, wherein the compound represented by Formula (1-12) has a molecular weight of 450 or more.

50. The organic electroluminescent element of any one of claims 47 to 49, wherein the light emitting layer contains the compound represented by Formula (1-12).

51. The organic electroluminescent element of any one of claims 47 to 50, wherein at least one of the constituting layers is a hole blocking layer and the hole blocking layer contains the compound represented by Formula (1-12).

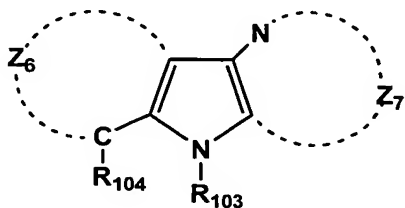
52. The organic electroluminescent element of any one of claims 47 to 51 which emits blue light.

53. The organic electroluminescent element of any one of claims 47 to 51 which emits white light.

54. A display device having the organic electroluminescent element of any one of claims 47 to 53.

55. An organic electroluminescent element comprising a pair of electrodes having therebetween at least one constituting layer containing a phosphorescent light emitting layer, wherein one of the constituting layer contains a compound represented by Formula (1-13):

Formula (1-13)



wherein R₁₀₃ represents an alkyl group which may have a substituent, a cycloalkyl group which may have a substituent, an aryl group which may have a substituent or a heterocyclic group which may have a substituent; R₁₀₄ represents a hydrogen atom or a substituent; and Z₆ and Z₇ each independently

represents an atom group which is necessary to form a 5 - 7 membered heterocyclic ring containing nitrogen.

56. The organic electroluminescent element of claim 55, wherein Z_6 of the compound represented by Formula (1-13) is a 6-membered ring.

57. The organic electroluminescent element of claim 55 or claim 56, wherein Z_7 of the compound represented by Formula (1-13) is a 6-membered ring.

58. The organic electroluminescent element of any one of claims 55 to 57, wherein the compound represented by Formula (1-13) has a molecular weight of 450 or more.

59. The organic electroluminescent element of any one of claims 55 to 58, wherein the light emitting layer contains the compound represented by Formula (1-13).

60. The organic electroluminescent element of any one of claims 55 to 59, wherein at least one of the constituting layers is a hole blocking layer and the hole blocking layer contains the compound represented by Formula (1-13).

61. The organic electroluminescent element of any one of claims 55 to 60 which emits blue light.

62. The organic electroluminescent element of any one of claims 55 to 60 which emits white light.

63. A display device having the organic electroluminescent element of any one of claims 55 to 62.